S04 65-1

ARIZONA LABOR MARKET INFORMATION

NEWSLETTER

Vol. XVI No. 2
February 1992

Unemployment Rate

Seasonally Adjusted
December 1991*

ARIZONA	–	8.6%
Maricopa Co.	–	7.4
Pima Co.	–	5.7
United States	–	7.1

Consumer Price Index

U.S. – December 1991
Base = 1982-84

Wage Earner/Clerical Worker	–	135.9
% Chg. Year Ago	–	2.8
All Urban	–	137.9
% Chg. Year Ago	–	3.1

Phoenix – 4th Qtr 1991
Base = 1982-84

All Urban	–	138.4
% Chg. Year Ago	–	2.3

Tucson CPI No Longer Available (see May 1991 *Arizona LMI Newsletter*

* Preliminary

2000

On the Edge of the 21st Century

DES Report Offers Snapshot of Arizona Labor Market by End of Decade

Inside This Issue **Page**

RA Report Looks at Arizona Labor Market Trends Through 2000	2
BLS Issues 1990-2005 Employment Forecasts	2
The Arizona Labor Force in December	7
Arizona Labor Force Statistics	8
New Developments	14
Two Occupational Reports Updated	15

Arizona Department of Economic Security
— Moving People Toward Self-Sufficiency

Study: Overall Mix of State's Workers to Change Little in '90s

But Minorities, Women, Older Workers Expected to Gain Larger Shares of New Jobs

Last November, in conjuction with a statewide conference on employment and training issues, the Department of Economic Security's Research Administration issued a forecast of labor force, employment, and occupational trends through the year 2000. The goal of the conference and report was to give a glimpse at the expected makeup of Arizona's economy by 2000 to those involved in planning and public-policy making activities — such as vocational-education planners, economic-development officials, and employers.

The report, "On the Edge of the 21st Century: A Forecast and Analysis of Arizona Labor Market Trends Through the Year 2000," looked at a variety of issues that will affect Arizona's workforce and industry through this decade. Among these are: expected population growth by race/ethnicity, age, and sex; occupation, labor force, and employment growth and makeup by race/ethnicity, age, and sex; foreign trade — specifically with Mexico — and its effects on state employment; the cycle of low-wage jobs/industry in Arizona and its relationship to the state's migrational patterns; and the rapid growth of female-headed, single-parent households in Arizona.

Although less intensive in scope, the Arizona study is similar in nature to a national "Workforce 2000" produced by the Hudson Institute for the U.S. Department of Labor in 1987.[1] That study has been used as a benchmark by national, state, and local organizations for developing long-term education and training strategies and policies. (National data used in that report has now been updated for the period covering 1990 to 2005; see related story on this page.)

The Hudson Institute report, however, offers only limited insight into state and local labor market trends — and therefore the need for a statewide study. In addition, the Arizona report disagrees with — and does not take into account — one of the major assumptions of the "Workforce 2000" study: that a slowly growing U.S. labor force between 1985 and 2000 will create a shortage of professional and technical workers and an oversupply of low-skilled workers, or a skills mismatch, at a time when skill levels will need to dramatically increase.

Instead, the Arizona study, which was researched and authored by University of Arizona professor Arthur L. Silvers, accepts the view of a recently released report by the Economic Policy Institute. That report says no skills mismatch will occur by 2000 because it expects only a slight shift in the nation's occupational structure and a *slowdown* in the upgrading of skills.[2]

Another major distinction between the Arizona and "Workforce 2000" studies is that the U.S. report offers three possible scenarios for economic growth — low, moderate, and high — while the Arizona report offers just one. Since the Arizona study was completed much closer to the year 2000, there is less need for multiple forecasts.

Several sources of data were used extensively to create the Arizona 2000 report: 1) studies of demographic composition and change produced population projections and, therefrom, state labor force forecasts; 2) an amalgamation of several economic projections produced an intermediate-term economic forecast, and therefrom, employment estimates; 3) the 1980 census and limited available data from the 1990 census helped develop occupational and economic well-being trends; and 4) studies and forecasts from several public-sector studies were used to look at the effects of foreign trade and international migration on Arizona's economy.

Following are some of the major findings

BLS Updates Job Estimates Through 2005

The U.S. Department of Labor's Bureau of Labor Statistics (BLS) has updated its economic and employment projections to the year 2005. The projections, the Bureau's 18th in a biennial series dating back to 1957, are widely used in studying long-range economic and employment trends and are the basis for career information developed in the Bureau's occupational-outlook program.

The projections offer three alternative scenarios — low, moderate, and high — of changes in the labor force, economic growth, and employment by industry and occupation. Each projection scenario employs a specific set of assumptions, including factors such as fiscal policy, monetary policy, demographic changes in population, foreign exchange rates, and unemployment.

Projected employment growth from 1990 to 2005 varies widely among the three outlooks: 14 million in the low-growth scenario, 25 million in the moderate-growth situation, and 32 million in the high-growth scenario. Projected annual real GNP growth under these scenarios are 1.5 percent, 2.3 percent, and 2.9 percent, respectively.

Following are highlights of the moderate-growth scenario.

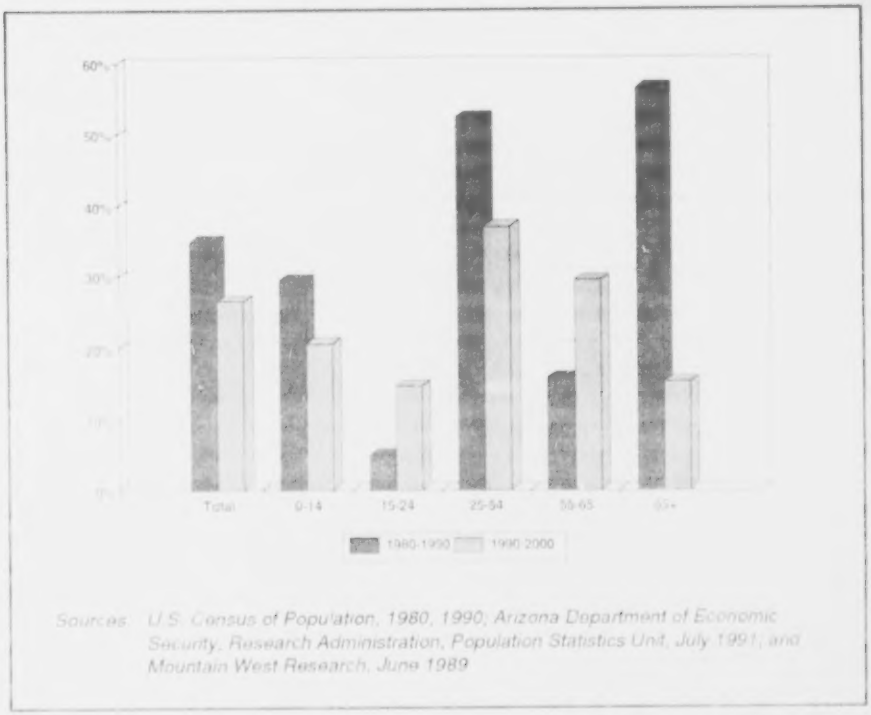
Labor Force:

- Mainly because of slower growth in the population age 16 and over, BLS projects the annual growth rate for the labor force from 1990 to 2005 to be 1.3 percent, down from 1.9 percent in the previous

(Continued on page 12)

of the Arizona study, broken out by the report's four major sections:

Figure 1. Arizona Age-Cohort Growth Rates, 1980-1990 and Projected 1990-2000



Sources: U.S. Census of Population, 1980, 1990; Arizona Department of Economic Security, Research Administration, Population Statistics Unit, July 1991; and Mountain West Research, June 1989

Demographic Trends:

- The state's population should increase from 3.67 million in 1990 to 4.64 million in 2000, or grow at an annual rate of 2.4 percent. While the growth rate this decade should be considerably slower than during the 1980s (3 percent), it should still outdistance the rest of the nation, expected to grow at an annual clip of 0.8 percent.

- There should be major shifts (10 percent or higher) this decade in growth-rate patterns among all age groups; fastest growing age groups will be 15-24 and 55-64, while groups expected to show a sharp drop in growth are 0-14, 25-54, and 65+. While these changes will not dramatically affect the state's overall age-profile distribution, they will likely require targeting of training for different age groups (e.g., older adults will need more training to offset the expected shortage of younger labor force entrants).

- Arizona's largest minority groups will grow faster than whites during the decade, but overall these groups' share of population in 2000 will be quite similar to their share in 1990. The biggest changes will come from Hispanics, who will account for 31 percent of the state's growth and increase their overall share 2.5 percentage points to 21.3 percent; and whites, who will contribute 55.1 percent of population growth and see their share of population drop more than 3 percentage points to 67.8 percent.

- Population growth due to net migration should slow somewhat this decade — from 68.2% to 65.3% — but migration patterns in 2000 among race/ethnic groups are expected to be similar to 1990, except for Asians, who should see a drop of 10 percent. Whites, however, should continue to account for most of the state's net migration, while blacks and Hispanics will continue to have Arizona's fastest rates of natural increase.

- Arizona's migrational patterns are in part a reflection of the state's pattern of economic development: much of industry's needs for less-skilled and lower-wage labor has been disproportionately supplied by the state's resident population — principally minorities — while the need for workers with more advanced skills and education have been drawn primarily from migrating whites. The need for broad and unpredictable skills, along with inadequate training for local residents, are two major reasons for this pattern.

- Based on data from the U.S. Census Bureau and the U.S. Immigration and Naturalization Service (INS), international migration did not appear to have played a major role in population growth last decade in Arizona, nor is it likely to during the 1990s. However, lack of INS data on undocumented aliens — particularly political refugees from Central America during the mid-'80s — makes it difficult to give a definative statement on international migration.

Labor Force:

- Following a national trend, the female share of Arizona's workforce should rise slightly — 45.3 percent in 2000 vs. 43.4 percent in 1990 — as gains in participation rates are expected for all female age groups, except for the oldest working group (65+). Male participation rates by age group should remain about the same.

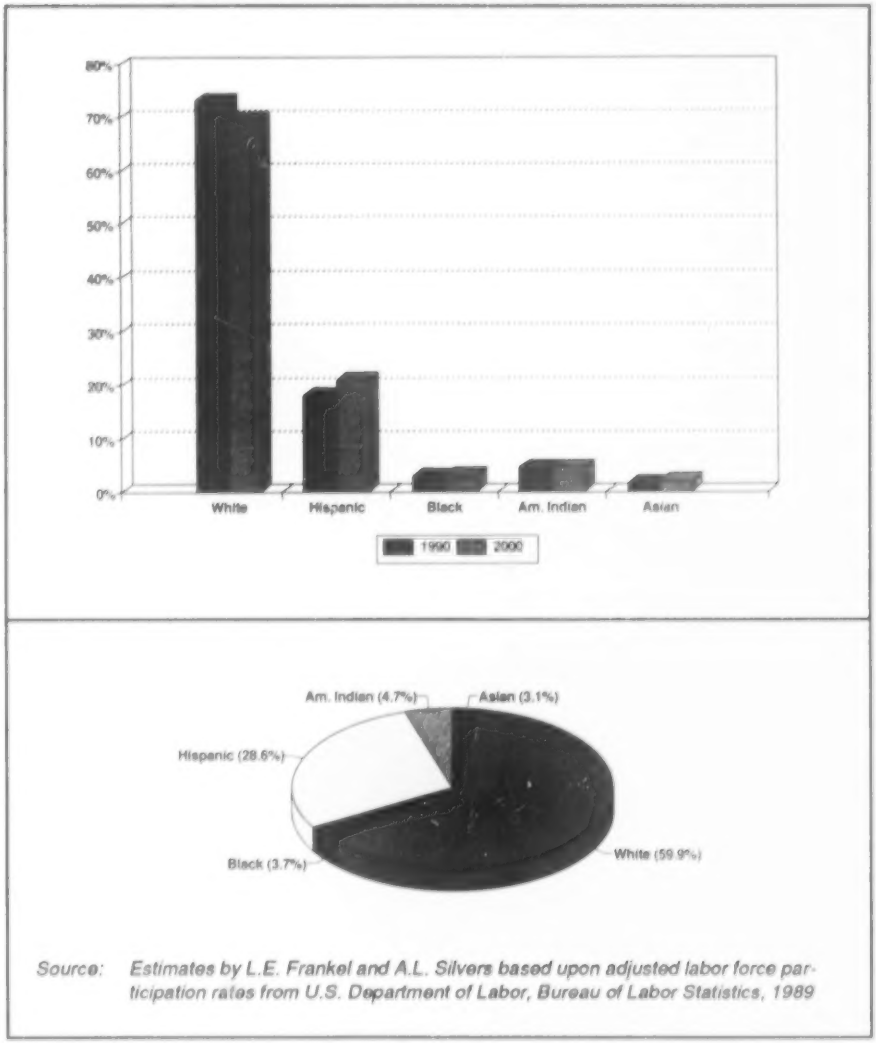
- As a group, minorities should see their share of Arizona's labor force growth this decade greatly surpass their share of the overall labor force in 1990 (40 percent vs. 28 percent),

but the race/ethnic makeup of the state's overall labor force should be little changed between 1990 and 2000. The greatest group changes will occur with whites and Hispanics: the former will see its share of the labor force drop from about 73 percent to 70 percent; the latter's share should increase from around 18 percent to 21 percent.

- As will be the case nationally, slow growth in Arizona's youngest working-age group (15-24) will create a shortage of entry-level workers and growing opportunities for women, minorities, and older workers; the state's youngest working-age group is projected to only grow at an annual rate of 1.9 percent this decade, compared to 3.2 percent for the 25-54 group. This phenonmenon may help to improve wages for and reduce discrimination against minority groups and women.

- Because income data from the 1990 census were not available at the time of this study, projections for the economic well-being of family groups by gender and race/ethnicity were difficult to make. However, 1990 census data did show that in Arizona over the last decade, households with children that were headed by single females — a group that tends to have higher incidences of poverty — increased its share of all households from 15.6 percent to 20.1 percent. Blacks and American Indians showed the highest incidences of this family makeup.

Figure 2. **Percent Share of Arizona Labor Force by Race/Ethnic Group, 1990 and Projected 2000 (Top); and Percent Share of Arizona Labor Force Growth by Race/Ethnic Group, 1990-Projected 2000**



Source: Estimates by L.E. Frankel and A.L. Silvers based upon adjusted labor force participation rates from U.S. Department of Labor, Bureau of Labor Statistics, 1989

Job Market:

- The industrial makeup of Arizona and the nation as a whole — which for years were quite dissimilar — should move closer together during this decade. Because of that the U.S. economy will play a larger role in determining the state's employment and occupational growth rates.

- Arizona's total civilian employment — which includes self-employed, agricultural, and household workers, as well as non-farm wage and salary workers — should increase about 45 percent to 2.36 million between 1990 to 2000. Among major industry groups, the finance, insurance, and real estate (FIRE) and services sectors are expected to produce one of every two new non-farm payroll jobs. Also, following a national trend, the goods-producing sectors — manufacturing, construction, and mining — should continue to lose their share of non-farm wage and salary jobs in Arizona, dropping 1 percentage point by 2000 to 17.8 percent.

- Forty-three percent of the 720,000 new civilian jobs expected in Arizona by 2000 will be in the lower-wage, major occupational groups of service, laborer, and clerical, or about 3 percentage points above those groups' share of the state's occuapational mix in 1990; the high-skilled, blue-collar

category of crafts and precision-production will increase its share of occupational employment about 1.5 percentage points, while the professional category should see its share drop about 1 percentage; all other groups should each have share losses under 1 percentage point.

- Based on data from the Economic Policy Institute report and the state's expected occupational mix, an upgrading of skills across and within occupations should only be slight between 1990 and 2000. On the other hand, a continued shift from goods-producing to service-producing jobs should hold down overall wage gains in Arizona this decade and narrow the wage differential between the goods-producing and service-producing sectors.

- Foreign trade will play a small, but gradually increasing role in Arizona's economy; foreign trade directly accouted for 4 percent (61,800 jobs) of the state's total employment in 1989 (with the multiplier affect, 6.6 percent or 106,000 jobs). Mexico accounted for about 20,000 jobs in 1989 and, based on its growth pattern, could account for another 12,500 by 2000. Job growth from a future free-trade agreement with Mexico, however, is not expected to supply more than 3,500 jobs for Arizona this decade.

Policy Implications:

- Although little skills upgrading across and within industries is expected this decade in Arizona, the state will need to upgrade the skill level of its workforce if it wants to attact higher-paying jobs from out of state and offer a more productive workforce for existing companies. However, skills-training programs will need to be targeted for jobs that will materialize; and projected shifts in growth patterns by age, gender, and race/ethnicity will demand that resources be appropriately allocated.

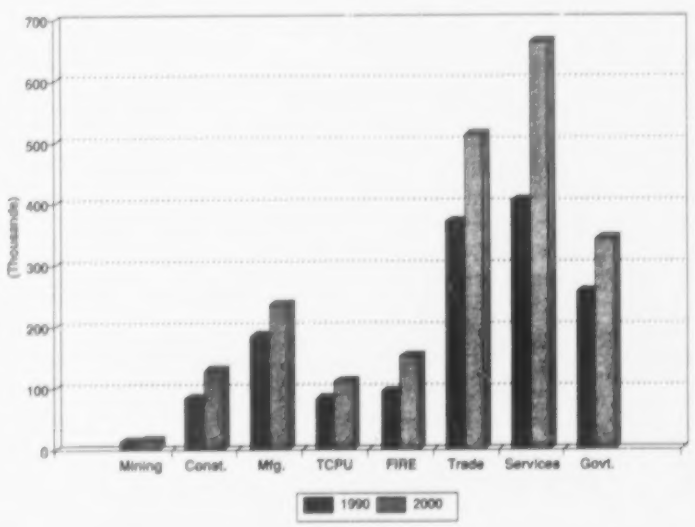
- Although the cycle of low-wage in-

Table 1. Top 15 Industries in Arizona, Ranked by Largest Growth in Wage and Salary Employment, 1990-Projected 2000

Industry	New Jobs	Pct. Inc.
Business Services	97,300	78.5%
Health Services	48,400	46.3
Eating, Drinking Places	46,000	43.5
Schools	45,000	38.4
Real Estate	34,000	35.0
Construction	24,400	20.3
Hotels and Motels	20,600	47.0
Agricultural Services	15,500	55.5
Insurance	12,800	39.0
Transportation Equipment	11,500	42.6
Auto Repair	9,800	40.8
Legal Services	8,900	52.7
Air Transportation	7,200	42.6
Printing and Publishing	6,800	37.0
Investments	3,900	41.1

Sources: Estimates by A.L. Silvers and L.E. Frankel based upon data from Economic Forecasting Project, Division of Economic and Business Research, University of Arizona; and "BEA Regional Projections to 2040," Vol. 1: States, U.S. Dept. of Commerce, Bureau of Economic Analysis, June 1990

Figure 3. Arizona Wage and Salary Employment by Industry, 1990 and Projected 2000



Sources: 1990 data: Arizona Dept. of Economic Security, Research Administration, January 1991; 2000 data: same as Table 1

dustry in Arizona is likely to continue this decade, the state can take several steps to change this trend. Among these are: making a sizable investment in skills upgrading and educational attainment for the resident population, particularly growing minority groups; utilizing a variety of educational settings (e.g., universities, community colleges, and vocational-education) to provide a well-trained and varied workforce; and targeting and nurturing emerging and growing industries (e.g., health science and optics).

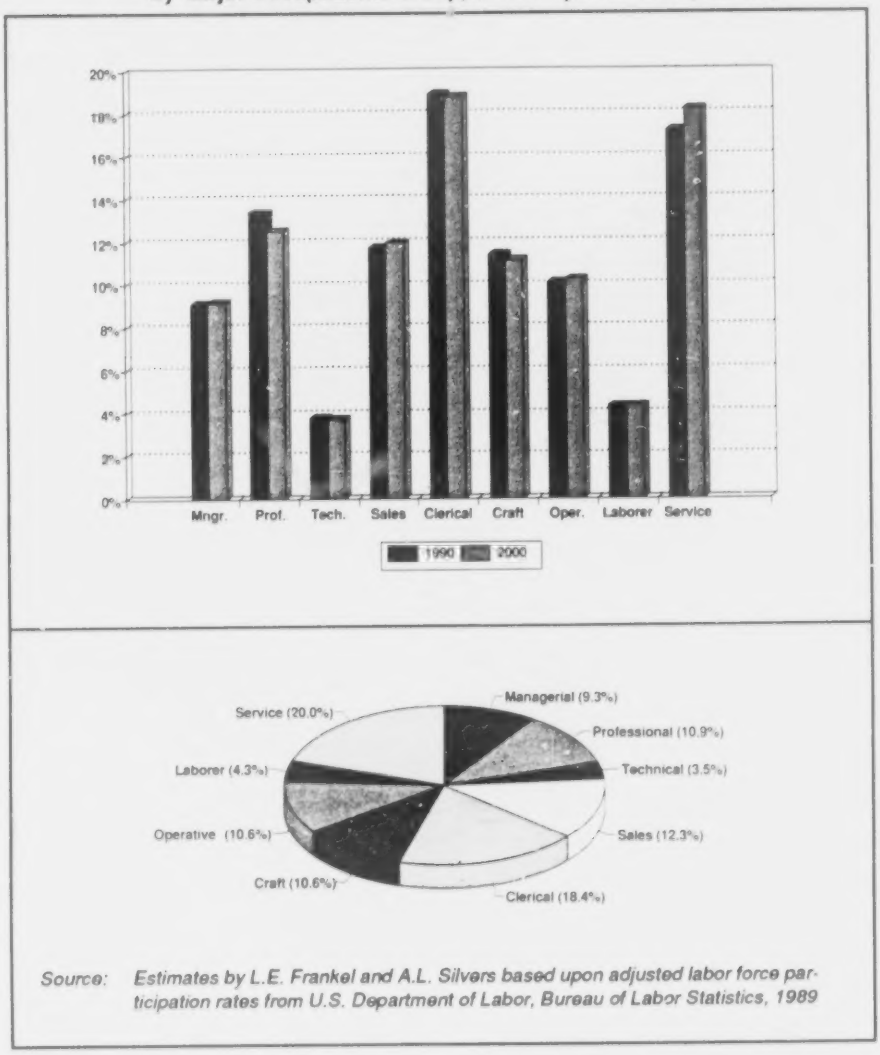
- While an increased demand this decade for entry-level workers is expected to somewhat ameliorate discriminatory practices and poverty for large segments of the workforce in Arizona and the nation, several other issues designed to open up the workplace are expected to command center stage. Among these are: the availablity of child care, particularly for single-parent families who cannot afford to work and child-care expenses; health care benefits for the estimated 500,000 working Arizonans who are without insurance; and promoting policies that open up the workplace to a wider variety of individuals (e.g., mentally and physically handicapped and older workers).

- Although Arizona should continue to benefit — in terms of employment and trade — from an expanding Mexican economy, the state could do more over the near-term to capitalize on its cultural and geographic ties with all Latin American countries. This includes: encouraging more people to learn Spanish; improving and heightening interest in international business and education at its universities; and improving transportation (e.g., rail, highway) infrastructure at the Mexican border to smooth movement of goods.

A limited number of copies of the Arizona study are available at no charge by contacting DES, Research Administration; call (602) 542-3871.

— DES, Research Administration

Figure 4. Percent Share of Arizona Jobs by Major Occupational Group, 1990 and Projected 2000 (Top); and Percent Share of New Arizona Jobs by Major Occupational Group, 1990-Projected 2000 (Bottom)



Source: Estimates by L.E. Frankel and A.L. Silvers based upon adjusted labor force participation rates from U.S. Department of Labor, Bureau of Labor Statistics, 1989

Notes:

1. "Workforce 2000: Work and Workers for the 21st Century," William B. Johnston and Arnold E. Packer, Hudson Institute, June 1987, pp. 98-101.

2. "The Myth of the Coming Labor Shortage: Jobs, Skills, and Incomes of America's Workforce 2000," Lawrence Mishel and Ruy A. Teixeira, Economic Policy Institute, 1991, pp. 1-34.

Job Forecast in March Issue

DES, Research Administration's annual two-year employment forecast for Arizona, its two major metropolitan areas, and the non-metropolitan counties as a whole will be published in the March *Arizona LMI Newsletter*.

The Arizona Labor Force in December

Arizona's seasonally adjusted unemployment rate soared to 8.6 percent in December, up from 7.3 percent in November and its highest level since August 1983. The 1.3 percentage-point rise was the largest single monthly gain in Arizona's rate since a 1.5 percentage-point rise in February of the recessionary year of 1975. And the 3.2 percentage-point rise since September is the steepest three-month climb in the state since seasonal adjusting began in 1963.

Three factors sent the rate soaring in December: 1) 14,800 more people joined the ranks of the unemployed last month when an 800 gain has been average for the month over the last decade; 2) total employment declined 19,100 when an average gain of 2,600 has occurred in December the last 10 years; 3) the labor force shrunk 4,300 when on average it grows 3,400 in December.

Unemployment ballooned because new job seekers and re-entrants poured into the labor market at record rates. Perhaps loss of jobs by primary breadwinners sent spouses and older children into the market before Christmas to help close the family income deficit. However, seasonal jobs were not available in usual numbers, because merchants were anticipating a weak holiday season and were restrained in staffing-up. A total of 133,400 Arizonans were unemployed in December.

Total employment — which includes wage and salary employees, as well as the self-employed and agricultural workers -- was down for the year ending in December for the first time since 1982. Over the year (December to December) there were 45,800 fewer employed in Arizona, bringing total employment down to 1,597,000. The self-employed category suffered the most radical losses last month, declining more than three times than normal for December (18,000 loss vs. an average loss of 4,900).

December retail trade job growth was weaker than in the recessionary year of 1982. Retail trade added 4,100 jobs for the month, an increase of 1.3 percent, while it gained 4,800 jobs, or 1.9 percent, in December 1982. Weakness in retail trade was concentrated in the subindustries of food stores, and restaurants and bars, which added only 200 and 100 jobs, respectively, when each normally posts gains of 800 in December. This may be indication as much that tourism was down as that it was a weak Christmas sales season.

Adding to the possibility of weak tourism were job losses of 400 by hotels and lodging services. On average, lodging-services employment is stable in December. In addition, health services (up 300) posted less than half its average December gains (700). Health services are dependent on the influx of winter migrants and tourists to support normal upward-staffing.

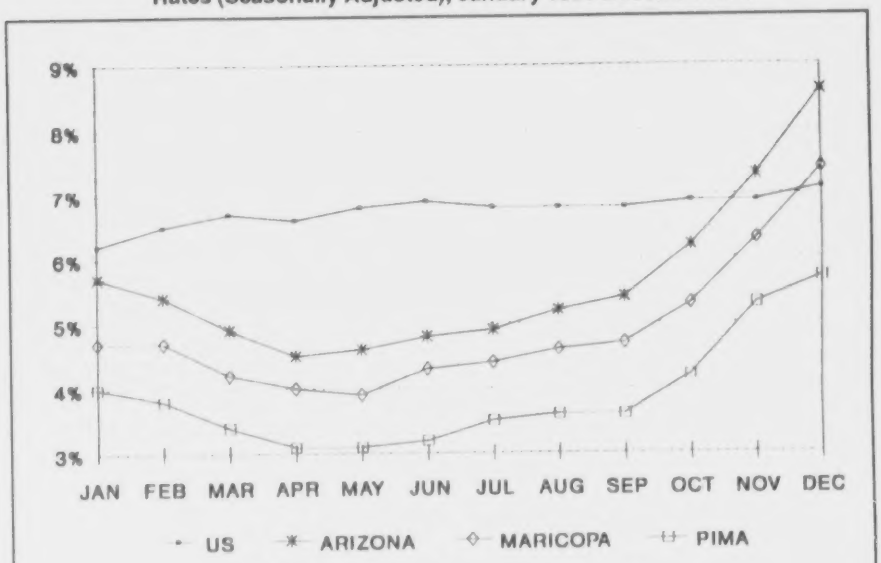
One more thorn in tourism's winter crown was stabbed by the transportation industry, which added 400 jobs, little more than half normal. December's weak gain took the shine off November's greater-than-seasonal gain (600 when 400 is average). .

All other major industry groups in Arizona, except mining, had monthly job losses in December. Manufacturing overall lost 200 jobs, propelled by a 300 drop in the aircraft and missiles sector. Construction was down another 1,400 — a more than seasonal decline — despite 25-year low interest rates. Finance, insurance, and real estate (FIRE) lost 200 jobs, all in the savings institution components of finance. And government lost a greater-than-seasonal 1,100 jobs, but losses were more than seasonal only because some state fair employment was still being counted in November.

Maricopa County's unemployment rate rose to 7.4 percent in December from 6.3 percent in November, while Pima County's unemployment rate climbed to 5.7 percent in December from 5.3 percent in November. All non-metropolitan counties posted unemployment rate increases in December. Yuma County had the highest seasonally adjusted rate at 30.9 percent. Eight counties had double-digit rates.

—Ron Simon,
RA Economic Analysis Manager

Figure 1. U.S., Arizona, Maricopa County, and Pima County Unemployment Rates (Seasonally Adjusted), January 1991-December 1991



Source: U.S. Department of Labor, Bureau of Labor Statistics; and Arizona Department of Economic Security, Research Administration, January 1992

Arizona Labor Force and Employment

December 1991 (in Thousands)

	ARIZONA			AMOUNT CHANGE		MARICOPA COUNTY			AMOUNT CHANGE		PIMA COUNTY			AMOUNT CHANGE	
	Dec.* 1991	Nov.** 1991	Dec. 1990	Nov. - Dec.	1990 - 1991	Dec.* 1991	Nov.** 1991	Dec. 1990	Nov. - Dec.	1990 - 1991	Dec.* 1991	Nov.** 1991	Dec. 1990	Nov. - Dec.	1990 - 1991
TOTAL CIVILIAN LABOR FORCE* **	1730.4	1734.7	1736.8	18.7	5.3	1068.3	1070.3	1077.6	8.1	-3.9	320.2	323.0	315.1	4.7	7.1
Total Unemployment	133.4	118.6	94.0	14.7	29.1	72.9	64.5	48.7	7.7	17.1	17.0	13.0	3.2	3.6	
Unemployment Rate	7.7%	6.8%	5.4%	—	—	6.8%	6.0%	4.5%	—	—	5.3%	5.3%	4.1%	—	—
Unemployment Rate (Sea. Adj.)**	8.6%	7.3%	5.9%	—	—	7.4%	6.3%	4.8%	—	—	5.7%	5.3%	4.3%	—	—
Total Employment	1597.0	1616.1	1642.8	4.0	-23.8	995.4	1005.8	1028.9	0.4	-23.4	303.1	306.0	302.1	1.5	3.5

Note: Above labor force statistics should not be used for economic-assistance programs

NON-AGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

TOTAL WAGE AND SALARY	1548.1	1544.5	1536.8	5.9	12.8	1016.2	1013.3	1016.6	3.1	0.0	268.8	267.9	260.6	1.9	7.9
Manufacturing	177.7	178.0	184.8	-1.0	-7.1	131.6	131.8	137.3	-1.1	-5.9	25.2	25.3	26.4	0.1	-1.1
Durable Goods	131.3	131.6	138.4	-0.7	-7.2	99.3	99.4	104.6	-0.8	-5.5	19.4	19.5	20.6	0.1	-1.1
Stone, Clay, and Glass	5.9	6.0	6.6	-0.2	-0.7	3.2	3.3	3.9	-0.1	-0.6					
Primary and Fabricated Metals	13.9	13.8	14.3	0.1	-0.4	9.4	9.4	9.7	0.0	-0.3					
Primary Metals	6.1	6.1	6.2	0.1	0.0										
Fabricated Metals	7.8	7.7	8.1	0.0	-0.4										
Machinery	56.6	56.6	58.9	-0.1	-2.6	47.2	46.9	48.6	-0.1	-2.0					
Aircraft and Missiles	23.6	23.9	27.2	-0.5	-3.5										
Lumber and Wood Products (Excluding Furniture)	6.5	6.5	6.5	-0.1	0.0										
Nondurable Goods	46.4	46.4	46.4	-0.3	0.1	32.3	32.4	32.7	-0.3	-0.4	5.8	5.8	5.8	0.0	0.0
Food and Kindred Products	11.2	11.2	10.4	0.0	0.8	7.6	7.6	7.1	0.0	0.4					
Printing and Publishing	16.8	16.7	17.4	-0.1	-0.5	11.6	11.6	12.2	-0.2	-0.6					
Mining and Quarrying	13.3	13.3	12.6	0.0	0.6	0.7	0.7	0.7	0.0	0.0	2.4	2.4	2.3	0.0	0.1
Copper Mining	10.7	10.7	10.0	0.0	0.7										
Construction	79.6	81.0	81.5	0.2	-1.9	52.1	53.1	54.8	0.3	-2.8	15.5	15.5	14.4	0.0	1.1
Trans., Communications, & Public Utilities	81.5	81.1	83.7	0.8	-2.1	56.4	56.2	60.3	0.5	-3.5	10.8	10.7	9.6	0.0	1.1
Transportation	46.8	46.4	48.0	0.7	-0.8	33.7	33.5	36.5	0.4	-2.3	6.2	6.1	5.0	0.0	1.1
Communications and Public Utilities	34.7	34.7	35.7	0.1	-1.3	22.7	22.7	23.8	0.1	-1.2	4.6	4.6	4.6	0.0	0.0
Trade	390.4	385.9	388.9	5.0	1.8	263.1	260.1	262.9	2.8	0.9	63.7	63.1	62.1	1.1	1.0
Wholesale Trade	76.9	76.5	77.7	0.9	0.1	61.0	61.1	62.4	0.2	-0.7	7.6	7.5	7.5	0.1	0.1
Retail Trade	313.5	309.4	311.2	4.1	1.7	202.1	199.0	200.5	2.6	1.6	56.1	55.6	54.6	1.0	0.9
General Merchandise and Apparel	55.0	51.8	54.6	1.6	-1.2	33.9	31.8	33.9	1.0	-1.1	10.0	9.5	9.7	0.4	0.1
Food Stores	51.8	51.6	51.1	0.9	0.8	33.2	32.9	32.5	0.7	0.7	9.1	9.2	8.7	0.1	0.4
Automotive and Service Stations	35.2	35.3	34.7	0.0	0.6	22.0	22.2	21.5	0.1	0.7	5.6	5.6	5.5	0.0	0.2
Eating and Drinking Places	109.3	109.2	108.0	0.4	1.5	71.2	71.1	70.5	0.1	1.3	20.4	20.2	19.4	0.2	0.5
Finance, Insurance, and Real Estate	94.4	94.6	95.8	-0.1	-0.9	75.5	75.7	76.4	0.1	-0.4	11.7	11.6	11.8	0.0	-0.2
Services and Miscellaneous	429.9	428.2	416.2	-0.9	14.5	291.2	289.4	283.2	-0.7	7.7	80.0	79.7	76.0	0.1	4.4
Hotels and Lodging Places	44.7	45.1	44.5	0.3	1.0	28.9	28.9	28.2	0.4	1.2	6.6	6.7	6.5	0.1	0.3
Business Services*****	84.0	82.4	80.7	-0.8	2.8	66.7	65.3	65.0	-0.8	1.3	12.4	12.2	11.1	0.0	1.2
Health Services	106.5	106.2	103.7	0.5	3.1	68.4	68.1	67.0	0.2	1.2	23.5	23.4	22.7	0.2	1.1
Government	281.3	282.4	273.3	1.8	7.8	145.6	146.3	141.0	1.2	4.0	59.5	59.6	58.0	0.4	1.7
Federal	46.2	45.7	45.8	0.5	0.4										

* Preliminary
** Revised
*** Adjusted to the Current Population Survey to reflect place of residence
**** Normal seasonal variations have been eliminated to reflect underlying economic trends
***** Business Services underwent a series break between December 1987 and January 1988

Note: Annual averages may not total correctly due to rounding

Prepared by the Arizona Dept. of Economic Security, in cooperation with the U.S. Dept. of Labor, Bureau of Labor Statistics

Non-metropolitan Counties
Labor Force and Employment
December 1991

	Apache	Cochise	Coconino	Gila	Graham	Greenlee
CIVILIAN LABOR FORCE*	13,500	35,175	44,100	13,525	8,525	3,475
Total Unemployment	2,675	3,400	4,400	1,875	800	300
Rate	19.8%	9.6%	10.0%	13.8%	9.3%	8.9%
Rate (Seas. Adj.)**	21.8%	9.9%	9.5%	13.8%	9.9%	9.0%
Total Employment	10,825	31,775	39,700	11,650	7,725	3,175
THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED FOR ECONOMIC ASSISTANCE PROGRAMS						
TOTAL WAGE AND SALARY	16,650	26,075	41,875	11,800	5,750	3,550
Manufacturing	550	1,050	3,475	1,450	225	25
Mining & Quarrying	25	100	75	1,325	0	2,000
Construction	425	950	1,400	575	175	350
T.C.P.U.	2,050	1,725	2,550	525	150	50
Trade	1,475	5,150	9,825	2,450	1,575	300
F.I.R.E.	400	650	800	300	125	25
Services & Misc.	5,825	5,100	10,425	2,425	875	175
Government	5,900	11,350	13,325	2,750	2,625	625

	La Paz	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
CIVILIAN LABOR FORCE*	5,525	38,225	27,825	39,075	12,650	42,325	57,950
Total Unemployment	775	4,300	3,775	4,375	2,025	3,575	11,150
Rate	14.1%	11.2%	13.6%	11.2%	16.1%	8.5%	19.2%
Rate (Seas. Adj.)**	14.7%	11.3%	14.8%	12.3%	18.7%	8.3%	30.9%
Total Employment	4,750	33,925	24,050	34,700	10,625	38,750	46,800
THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED FOR ECONOMIC ASSISTANCE PROGRAMS							
TOTAL WAGE AND SALARY	3,975	27,250	21,925	32,050	12,075	29,675	30,425
Manufacturing	250	2,500	1,975	3,750	1,000	2,475	2,225
Mining & Quarrying	75	50	1,200	4,275	25	1,050	25
Construction	300	2,550	800	400	325	2,375	1,375
T.C.P.U.	150	1,350	1,600	1,075	825	1,050	1,175
Trade	1,350	8,100	4,250	5,750	5,750	7,975	9,700
F.I.R.E.	100	1,375	450	750	275	950	1,000
Services & Misc.	775	6,650	5,075	5,275	2,025	7,450	6,525
Government	975	4,675	6,575	10,775	1,850	6,350	8,400

* Adjusted to the Current Population Survey (CPS) to reflect place of residence.

** Seasonal adjustment not applicable for economic assistance programs.

T.C.P.U. = Transportation, Communications, and Public Utilities

F.I.R.E. = Finance, Insurance, and Real Estate

Prepared in conjunction with the U.S. Department of Labor, Bureau of Labor Statistics.

Estimated Hours and Earnings of Production Workers in Selected Industries Arizona

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVERAGE HOURLY EARNINGS		
	Dec.* 1991	Nov.** 1991	Dec. 1990	Dec.* 1991	Nov.** 1991	Dec. 1990	Dec.* 1991	Nov.** 1991	Dec. 1990
Manufacturing	$451.52	$445.63	$427.76	41.5	41.3	40.7	10.88	10.79	10.51
Aircraft & Missiles	692.85	668.50	691.01	46.5	45.6	47.2	14.90	14.66	14.64
Food & Kindred Prod.	335.51	335.29	356.33	38.3	39.4	39.2	8.76	8.51	9.09
Primary Metals	479.20	501.02	494.54	39.9	40.8	37.1	12.01	12.28	13.33
Machinery	455.95	455.80	390.26	41.3	41.1	39.5	11.04	11.09	9.88
Copper Mining	638.55	652.44	625.65	43.0	43.7	43.0	14.85	14.93	14.55
Construction	435.24	449.21	438.65	36.3	36.7	37.3	11.99	12.24	11.76
Utilities	813.03	769.88	752.58	43.9	42.7	44.4	18.52	18.03	16.95
Retail Trade***	275.99	271.36	256.79	32.7	32.0	32.3	8.44	8.48	7.95
Wholesale Trade	414.00	413.71	403.37	38.8	38.2	39.2	10.67	10.83	10.29

Estimated Hours and Earnings of Production Workers in Selected Industries Maricopa County

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVERAGE HOURLY EARNINGS		
	Dec.* 1991	Nov.** 1991	Dec. 1990	Dec.* 1991	Nov.** 1991	Dec. 1990	Dec.* 1991	Nov.** 1991	Dec. 1990
Manufacturing	$475.03	$461.42	$458.81	42.3	42.1	41.9	11.23	10.96	10.95
Construction	454.84	469.61	464.96	36.3	37.3	38.3	12.53	12.59	12.14
Retail Trade***	296.14	288.96	271.58	34.0	33.1	32.8	8.71	8.73	8.28
Wholesale Trade	429.66	428.68	434.66	39.6	38.9	39.3	10.85	11.02	11.06

Estimated Hours and Earnings of Production Workers in Selected Industries Pima County

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVERAGE HOURLY EARNINGS		
	Dec.* 1991	Nov.** 1991	Dec. 1990	Dec.* 1991	Nov.** 1991	Dec. 1990	Dec.* 1991	Nov.** 1991	Dec. 1990
Manufacturing	$439.60	$418.24	$409.07	41.2	40.1	39.6	10.67	10.43	10.33
Construction	386.64	383.40	384.89	35.8	35.5	34.8	10.80	10.80	11.06
Utilities	668.95	654.10	620.33	42.5	42.2	41.3	15.74	15.50	15.02

* Preliminary.

** Revised

*** Excludes eating and drinking places.

Note: These estimates are based on a sample of full- and part-time production and related employees whose payroll and hours are reported for the pay period which includes the 12th of the month.

Prepared in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics.

Arizona Labor Force and Employment for Economic Assistance Programs December 1991

County	Civilian Labor Force	Employment	Unemployment	Rate
Statewide	1,730,412	1,597,002	133,410	7.7%
Apache	13,517	10,835	2,682	19.8
Cochise	35,173	31,783	3,390	9.6
Coconino	44,098	39,692	4,406	10.0
Gila	13,511	11,646	1,865	13.8
Graham	8,535	7,737	798	9.3
Greenlee	3,492	3,182	310	8.9
La Paz	5,545	4,762	783	14.1
Maricopa	1,068,278	995,369	72,909	6.8
Mohave	38,223	33,929	4,294	11.2
Navajo	27,829	24,049	3,780	13.6
Pima	320,194	303,137	17,057	5.3
Pinal	39,083	34,706	4,377	11.2
Santa Cruz	12,647	10,615	2,032	16.1
Yavapai	42,336	38,752	3,584	8.5
Yuma	57,949	46,807	11,142	19.2

These figures are the only official BLS labor statistics to be used for revenue sharing purposes. They are not designed to be used as economic indicators.

NOTE: Series for Yuma and La Paz counties start January 1983.
Data are not comparable to any past series.

Job Estimates

(Continued from page 2)

15-year period studied (1975-1990).

- By 2005, the labor force — those working or looking for work — is expected to be 151 million, an increase of 26 million from 1990. The increase from 1975 to 1990 was 31 million.

- The labor force participation rate — the percent of the population in the labor force — is projected to continue to increase, although at a slower rate than during the previous 15 years. This slower increase reflects two important developments — aging of the population and the expected smaller increases in the participation of younger women in the labor force.

- The rate of growth of blacks, Hispanics, and Asian and other groups in the labor force is projected to be more rapid than for whites. The rate of growth for blacks, however, is expected to be slower than for Hispanics or the Asian and other groups.

- Between 1990 and 2005, 55.8 million people are expected to enter the labor force; nearly 30 million of them will replace workers who leave the labor force for retirement or other reasons. Labor force entrants will be almost equally women and men, but those leaving the labor force are more likely to be men, largely reflecting their higher proportion of the older labor force.

Industry Employment:

- BLS projects total employment will increase by 24.6 million from 1990 to 2005, an average annual growth rate of 1.2 percent. Total employment will grow from 122.6 million in 1990 to an expected 147.2 million in 2005.

- Almost all of the employment increase is projected to occur in the service-producing sectors, which include services; transportation, communications, and public utilities

(TCPU); finance, insurance, and real estate (FIRE); trade (wholesale and retail); and government. In the goods-producing sector, job increases in the construction industry — from 5.1 million to 6.1 million — will largely offset job declines in manufacturing — 19.1 million to 18.5 million.

- Within the service-producing sectors, the services division is expected to add nearly one-half of the total growth of non-farm wage and salary jobs (23.3 million). The two largest industries in this division — health services and business services — together account for 6.1 million, or about one-fourth, of the projected total increase in non-farm payroll jobs. Large numbers of new jobs also are projected for other service-producing divisions — retail trade (5.1 million), state and local government (3.2 million), and FIRE (1.4 million).

Occupations:

- Employment in major occupational groups that require the most education or training — executive, administrative, and managerial workers; professional specialty occupations; and technicians and related support occupations — will grow faster than the overall average (20.1 percent). These three groups, which accounted for just more than one-fourth of total employment in 1990, are expected to represent 41 percent of the increase in employment between 1990 and 2000 (see table 1).

- Despite the faster growth in occupations that require higher education, the structure of employment by major occupational group is expected to change only moderately from 1990 to 2005, as shares of total employment for most groups are projected to change by less than 1 percentage point. Among occupations requiring relatively little education and training, only service workers are expected to experience above-average employment growth (29.2 percent).

- The fastest growing segments of the labor force — women, blacks, and Hispanics — are disproportionately employed in occupations that are projected to grow more slowly or decline, or that pay relatively lower wages. However, since the educational attainment of employed women roughly matches that of the labor force as a whole, women are expected to increase their proportions in higher paying jobs. But employed blacks and Hispanics, whose educational attainment is below the labor force average, may lose ground unless gains are made in schooling, particularly at the post-secondary level.

Table 1. Employment by Major Occupational Group, 1990 and Projected 2005 (Moderate Alternative), and Percent Change, 1975-90 and 1990-2005

(In Millions)

Occupations	1990		2005		Pct. Change	
	Total	Pct.	Total	Pct.	1975-90	1990-2005
Total, all occupations	**122.6**	**100.0**	**147.2**	**100.0**	**37.4**	**20.1**
Executive, administrative, and managerial	12.5	10.2	15.9	10.8	83.1	27.4
Professional specialty	15.8	12.9	20.9	14.2	59.9	32.3
Technicians and related support	4.2	3.4	5.8	3.9	75.7	36.9
Marketing and sales	14.1	11.5	17.5	11.9	55.1	24.1
Administrative support including clerical	22.0	17.9	24.8	16.9	33.9	13.1
Service occupations	19.2	15.7	24.8	16.9	36.1	29.2
Agricultural, forestry, fishing, and related	3.5	2.9	3.7	2.5	-9.8	4.5
Precision production, craft, and repair	14.1	11.5	15.9	10.8	28.9	12.6
Operators, fabricators, and laborers	17.2	14.1	18.0	12.2	6.7	4.2

Note: The 1990 and 2005 employment data and the projected change 1990-2005 are derived from the industry-occupation employment matrixes for each year. The data on 1975-90 percent change were derived from the Current Population Survey (CPS) because a comparable industry-occupation matrix for 1975 is not available. The CPS data represent estimates of employed persons and exclude the estimates of persons with more than one job that are included in the industry-occupation employment matrices. The CPS exclusion of dual jobholders affects the employment levels and trends of some occupational groups more than others. Therefore, the resulting comparisions of change between 1975-90 and 1990-2005 are only broadly indicative of trends.

Source: U.S. Department of Labor, Bureau of Labor Statistics, November 1991

—U.S. Department of Labor, Bureau of Labor Statistics

More detailed information on the 1990-2005 projections is available in the Fall 1991 issue of Occupational Outlook Quarterly and in five articles in the November 1991 issue of the Monthly Labor Review. Both are published by the U.S. Department of Labor's Bureau of Labor Statistics and are available at major libraries or by contacting the U.S. Government Printing Office in Washington, D.C.

Revlon Plant May Add 700 Positions; Gerber to Close Operations in Tempe

"New Developments" is featured each month as a service to our readers. This section is a compilation of public announcements and articles from newspapers and periodicals about events significant to Arizona labor markets. Due to space limitations, however, an exhaustive list of business news is not possible. In addition, the Arizona LMI Newsletter is not responsible for incorrect information reported by these sources.

MANUFACTURING — Restructuring of three manufacturing facilities by **Revlon Inc.** could lead to more than **700 new jobs** at the New York-based company's plant in Tolleson, which makes a variety of personal-care products. The restructuring process should be complete by the end of winter or early spring. The plant currently employs about 2,000 people.

As part of a company-consolidation plan, **Gerber Childrenswear Inc. will close its manufacturing operations in Tempe** by the middle of March, eliminating 375 jobs. The plant makes ladies' briefs and infant wear under the Gerber label and for other retailers.

Deluxe Corp. of Minnesota plans to **consolidate its check-printing operations in three Tempe locations** into one 100,000-square-foot plant within the Southbank business park on University Drive and 35th Street Phoenix. The new location, expected to be open by next January, **will allow for future expansion** and eventually house up to 300 employees. No information is available on how many of the 300 jobs would be new.

Rohr Industries of San Diego, which manufacturers aerospace parts, is **denying a rumor that it will build a manufacturing plant** that would employ more than 300 people on 229 acres it plans to purchase in Casa Grande. An official with the company says it plans to build a tool-storage facility at the intersection of Interstate 10 and Arizona 84 that will employ 15 people, but the official did not rule out other uses for the property down the line.

In January, **Motorola Inc. cut about 350 jobs** from its **Government Electronics Group**, located in Scottsdale and Chandler, due to a dropoff in defense spending. The group, which makes electronic components and systems, now has about 5,500 employees, 500 less than in 1991 and a drop of about one-third since it reached its peak of 8,600 in 1988.

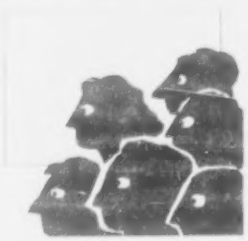
A manufacturer of household plastic items plans to **expand its operations** by building a 67,000-square-foot facility at an undetermined location in Phoenix. **Frem Corp.** of Worcester, Mass., which makes items such as laundry baskets and crates, expects to initially employ 40 people. The company chose Phoenix over sites in three other western states.

NEW DEVELOPMENTS

FINANCE, INSURANCE AND REAL ESTATE — **New-home sales in Arizona rose dramatically in 1991**, but sales for existing homes, apartments, town homes, and condominiums remained flat, according to the Arizona Real Estate Center at Arizona State University. Single-family home sales grew 8.4 percent last year — from 7,902 to 8,563 — while sales of existing homes dropped 2.1 percent over the year, from 25,247 to 24,714. Sales of new condominiums and town homes declined 38 percent, but resales rose 7.3 percent; apartment unit permits slid from 1,891 in 1990 to 710 in '91.

About 200 jobs **will be created in Chandler** over the next two years by **United Student Aid Funds Inc. and the Arizona Education Loan Program**. The two operations will lease about 29,000 square feet in the Rocky Mountain Financial Center. United Student Aid will service and administer student loans in 11 western states, including those started by Arizona Education Loan Program.

TRADE — Only a few months after it opened a new administrative center in Tempe that employs 650 workers, **Carter Hawley Hale Stores Inc.** announced it will **close its Southwest division headquarters in Mesa**, eliminating 240 jobs. The Mesa operations will be consolidated with operations in the company's home base in Los Angeles. Some laid-off workers could be given transfers to Los Angeles or San Francisco offices, or have a chance for 50 unfilled jobs in Tempe.



The **Smitty's supermarket chain** has **sold its grocery trucks and warehouse facilities**, eliminating 55 jobs, but the Phoenix-based company plans to **open two new stores**, one in Phoenix and Tucson, and remodel three others. Food wholesaler Fleming

Correction

On the front page of the January 1992 issue of the *Arizona LMI Newsletter*, some unemployment rate and consumer price index data for November 1991 were incorrectly reported. The data should have appeared as follows: Seasonally Adjusted Unemployment Rate — Arizona, 7.3%; Maricopa County, 6.2%; Pima County, 5.2%; United States, 6.8%. U.S. Consumer Price Index and Percent Change Year Ago — Wage Earner/Clerical Worker, 135.8 and 2.7%; All Urban, 137.8 and 3.0 percent. We regret any inconvenience the error may have caused.

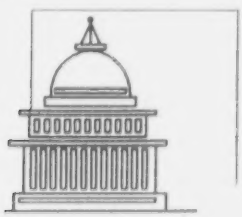
Foods of Oklahoma City bought the warehouse facility and will provide financing, along with Bank of America Arizona, for Smitty's expansion and remodeling plans. Smitty's currently operates 24 stores, all in the Phoenix metropolitan area.

A fixture of Valley furniture retailers, **Lou Regester Fine Home Furnishings**, will end its 43-year operation in March, forcing the **layoff of 75 employees** at its two remaining Phoenix stores. Poor sales will force the closure of two Camelback Road locations, after a location in Surprise closed in December and a Tucson location shut its doors two years ago.

SERVICES — Tucson's oldest psychiatric facility, **Palo Verde Hospital**, has **laid off 22 workers**, or 20 percent of its staff, due to low patient occupancy rates. Many of the job losses involved middle-management positions. Low occupancy rates are due to a glut of psychiatric facilities in the Tucson area and insurance companies that are less willing to pay for in-patient treatment, the hospital says.

The North American base of **Ramada International Hotels & Resorts** is moving to Miami from Phoenix, resulting in the **loss of 70 jobs**; 20 employees will relocate to Miami. The move, a result of a consolidation of Ramada's North American and Latin American operations, will not affect 450 Ramada Inns reservations agents in Phoenix, which are part of a separate company.

GOVERNMENT — Several Arizona cities are feeling the effects of the national recession. In the last several months, Phoenix and Tucson announced plans for layoffs, and now two other Arizona cities have plans for significant cuts. An expected $1.6 million budget shortfall will force the city of Glendale to lay off about 40 people as early as March. The areas affected were not detailed, but all laid-off employees will be offered severance packages. Meanwhile, Nogales recently cut 32 people from its workforce of 260 due to a $1 million budget shortfall and reduced remaining workers' pay by 5 percent.



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(602) 542-3871

Brent Fine, Editor
Linda Van Calcar, Word Processor

RA Updates 2 Occupational Profiles

The Arizona Department of Economic Security's Research Administration recently updated two publications in its *Arizona Occupational Profiles* series. The revised publications — which focus on the manufacturing and hospital industries — are a product of an ongoing study coordinated by the U.S. Department of Labor's Bureau of Labor Statistics, which provide a comprehensive look at the occupational composition of Arizona's industries.

These *Profiles* provide estimates of employment and job opportunities through 1994 for nearly 400 manufacturing and 200 hospital occupations. Occupational data for Arizona and each of the state's counties are based on employer survey responses.

Following are some of the highlights from each publication.

Manufacturing:

- employment in professional and technical occupations is increasing the fastest.
- precision electrical and electronic equipment assemblers are projected to lose the most employment between 1989 and 1994.
- four of the top six occupations, based on employment, are directly related to the production of electrical goods.
- in Pima County, one manufacturing worker in four is a professional, paraprofessional, or technical worker, whereas in the non-metropolitan counties the ratio is about one in 17.

Hospitals:

- employment in professional and technical occupations is increasing the fastest.
- employment of registered nurses is projected to increase 7,300 between 1989 and 1994.
- the number of hospitals classified as psychiatric has decreased in recent years, while the number of specialty hospitals — including rehabilitation facilities — has increased.

These and other labor market publications prepared by the DES, Research Administration, can be ordered by writing to the address on the back of this newsletter or by calling (602) 542-3871. Single copies of each publication are available on request, while multiple copies can be ordered at a nominal charge. The order number for the manufacturing publication is PAL-340; the hospital publication number is PAL-332. DES offices can order directly from DES supply.

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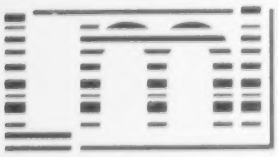

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